NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

Wet September Over Collier County

When Will Cool Season Begin?

October 1, 2009: For the second consecutive month, much of Collier County and interior sections of southwest Florida received above normal rainfall (Figure 1). This rain was largely beneficial due to the year-long rainfall deficit experienced over coastal Collier County, especially in the Naples area. Notable September rainfall amounts in these areas include Marco Island with 14.43 inches of rain (second consecutive month of over 10 inches of rain), Naples Regional Airport with 11.36 inches and Devils Garden in central Hendry County with 12.66 inches.

Over eastern sections of south Florida, rainfall ended up near to slightly below normal at most locations. Rainfall amounts over the eastern metro areas were mainly in the 6 to 8 inch range. As usual, there were pockets of lower and higher amounts, sometimes in close proximity to each other. Fort Lauderdale/Hollywood International Airport received only 3.91 inches of rain, while a few miles to the northeast at Fort Lauderdale Beach, a total of 11.22 inches fell (including 4.42 in one day on the 28th). In Palm Beach County, Juno Beach received only 4.08 inches of rain, while 13 miles south at Palm Beach International Airport a total of 7.48 inches was recorded.

One explanation for the much higher rain amounts in southwest Florida was a shift in the overall pattern during the month of September. The first part of the month was dominated by low pressure over the southeast United States, which provided for a general west to east flow over Florida, with wet conditions over southeast Florida as a result. The second part of September saw a switch to high pressure over the Gulf of Mexico and central Florida which produced a change in the atmospheric flow to an east to west direction. The predominant east to west flow during the second half of September, combined with typically high moisture values, led to the daily pattern of showers and thunderstorms focusing over western sections of the southern peninsula.

Below are September rainfall totals and departure from normal in inches for select south Florida locations:

Location	September 2009 Rainfall	September Departure From Normal
Miami Int'l	6.83	-1.55
Fort Lauderdale Int'l	3.91	-4.35
Palm Beach Int'l	7.48	-0.62
Naples Regional	11.36	3.25
Miami Beach	6.03	-0.28
Moore Haven	7.00	0.58
The Redland (South Dade)	9.89	1.50
Oasis Ranger Station	4.12	-3.98

Below are 2009 Wet Season rainfall totals and departure from normal in inches for select locations:

Location	Wet Season 2009 Rainfall thru 9/30	Wet Season 2009 Departure From Normal thru 9/30
Miami Int'l	40.08	5.00
Fort Lauderdale Int'l	28.86	-7.28
Palm Beach Int'l	41.99	10.04
Naples Regional	27.02	-8.15
Miami Beach	43.67	17.91
Moore Haven	45.20	15.82
The Redland (South Dade)	41.93	3.40
Oasis Ranger Station	38.27	-0.71

Now that October is here, many South Floridians look forward to the much anticipated end of the long, warm and humid rainy season and the onset of the mild and less humid dry season. The median date for the beginning of the dry season is October 17th for most of south Florida, and perhaps up to a week earlier for the interior northern sections of south Florida mainly west of Lake Okeechobee. The beginning of the South Florida dry season is usually marked by several consecutive days of dew points below 70 degrees which typically occur as a result of weak frontal passages and a gradual shift from deep tropical moisture and near-daily showers and thunderstorms to drier air masses of continental origin overspreading the area. The lower dew points also coincide with minimum temperatures dropping below 70 degrees for the first time since April or early May.

A more significant drop in temperatures typically does not occur until late October or early November, which is when the first significant cold front normally sweeps through south Florida. This offset between the beginning of the dry season and the beginning of the "cool" season occurs in most years, although in some years the beginning of the dry season is marked by a strong cold front. This was the case back in 2005 when a strong cold front swept through south Florida on the heels of Hurricane Wilma on October 25th.

One way to define the beginning of the "cool" season is the average date when the first daily minimum temperature drops to below 60 degrees over the southeast Florida metro areas, and 55 degrees or

below for the southwest Gulf coast and areas around Lake Okeechobee. Below is a table with the average first date of the cool season when these minimum temperature values are reached:

Location	**Average First Date Low Temp < 60F (< = 55F for Naples, Moore Haven and LaBelle)**
Miami	November 8
Fort Lauderdale	November 4
West Palm Beach	November 3
Miami Beach	November 18
The Redland (South Dade)	October 30
Naples	November 3
Moore Haven	November 2
LaBelle	October 30

The October outlook from the Climate Prediction Center is for equal chances of above, below or near normal temperatures. Local analysis suggests that there may be a slightly enhanced likelihood of below normal temperatures in October, but confidence is quite low. The precipitation outlook for October is for a slightly enhanced likelihood (50-55 percent) of above normal precipitation. As with the temperature outlook, confidence in the precipitation outlook for October is low.

Looking ahead to the upcoming dry/cool season, one of the primary features to look for is the evolution of the current El Niño pattern (for more information on El Niño, see the latest El Niño Advisory). Preliminary information based on latest projections from the Climate Prediction Center of a moderate El Niño peaking during the winter, in conjunction with local analyses, indicates a significantly increased likelihood of above normal precipitation and cooler than normal temperatures across south Florida for the upcoming November- April dry/cool season period. Along with the likelihood of wetter than normal conditions is an increased likelihood of severe weather, including tornadoes. A complete dry season outlook will be provided by the National Weather Service Miami-South Florida Forecast Office during the last week of October.

For the latest weather conditions, forecasts, warnings, advisories and statements, please visit the National Weather Service Miami-South Florida Forecast Office's web site at weather.gov/southflorida.

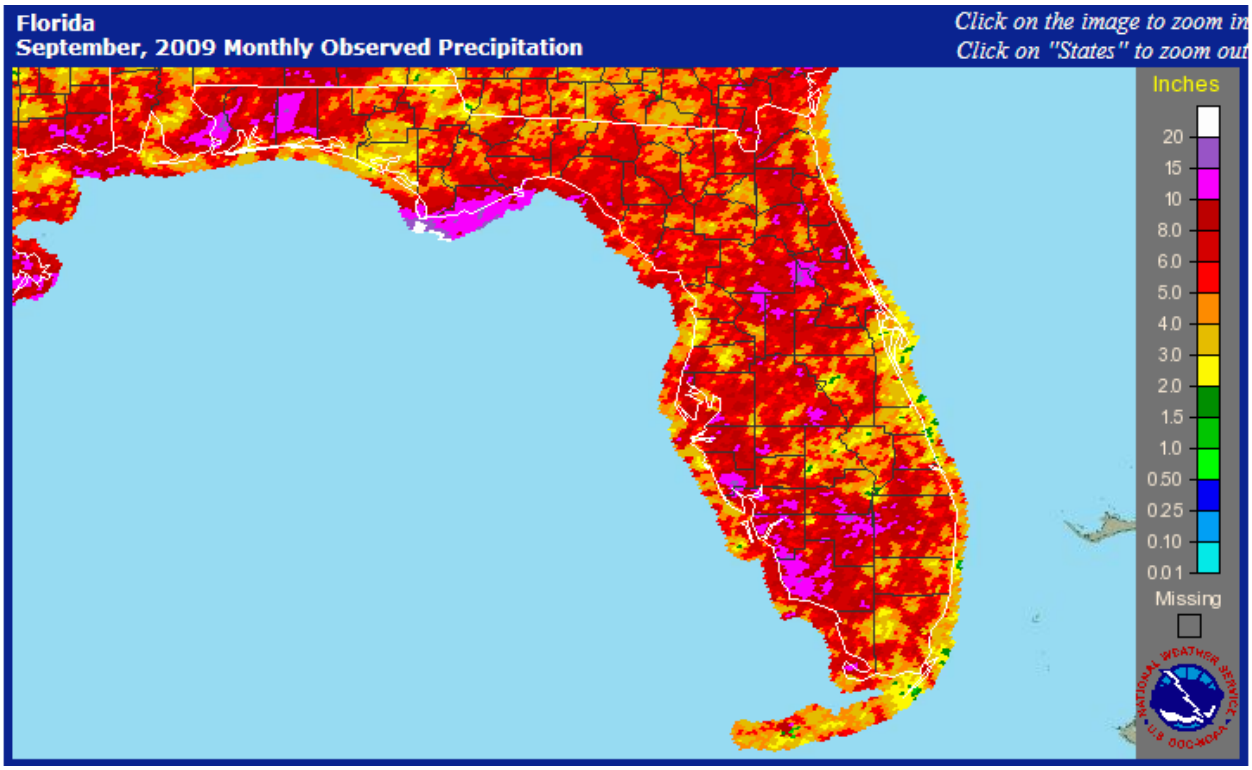

Figure 1: September 2009 Precipitation (cyan/magenta areas represent values in excess of 10 inches and orange/tan areas represent values below 5 inches)